UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte MARK J. BEITZ et al.

Appeal 2007-0517
Application 10/768,647[1]
Technology Center 1700

Decided: March 28, 2007

Before TORCZON, LANE, and TIERNEY, Administrative Patent Judges.

TIERNEY, Administrative Patent Judge.

DECISION ON APPEAL

STATEMENT OF THE CASE

Applicant appeals from a final rejection of claims 1 to 12 under 35 U.S.C. § 134 (2002). We have jurisdiction under 35 U.S.C. § 6(b) (2002).

Applicant's claimed subject matter generally relates to a process of manufacturing absorbent materials. Typically, personal care absorbent articles are formed from a web or ribbon of fibrous absorbent material that is provided to a machine as a wound roll or coil. To prevent interruption of the processing

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1 Application filed January 30, 2004. The real party in interest is Kimberly-Clark Worldwide, Inc.

machine, each coil is spliced to the leading end of the next coil. ('647 specification, p. 1, para 2). Previously, splicing techniques employed a splice that "is not fluid permeable and therefore unusable in an article." (*Id*. at para 3). Articles formed from the spliced regions were culled as they were not as absorbent as the non spliced region articles. (*Id*.). Applicant's rectify this problem in the art by employing a splicing material that has a fluid permeability that is at least as great as the fluid permeability of the absorbent materials being joined. (Claim 1).

There are two independent claims under appeal, claims 1 and 12. Independent claims 1 and 12 read as follows:

> 1. A process for splicing a first portion of absorbent material to a second portion of absorbent material to form a longer, continuous length of absorbent material suitable for uninterrupted sequential infeed to a processing machine, each of the first and second portions of absorbent material having a fluid permeability, the process comprising the steps of:
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> placing a trailing end of said first portion adjacent a leading end of said second portion;
>
> aligning said trailing end of said first portion with said leading end of said second portion; and
>
> attaching a piece of splicing material to said trailing end of the first portion to define a first spliced region and to said leading end of the second portion to define a second spliced region, said piece of splicing material having a fluid permeability at least about as great as the fluid permeability of said first portion of absorbent material and at least about as great as the fluid permeability of said second portion of absorbent material, the fluid permeability of said first splicing region being at least about as great as the fluid permeability of said first portion of absorbent material and the fluid permeability of said second splicing region being at least about as great as the fluid permeability of said second portion of absorbent material.

> 12. A process for splicing a first portion of absorbent material to a second portion of absorbent material to form a longer, continuous length of absorbent material suitable for uninterrupted sequential infeed to a processing machine, each of the first and second portions of absorbent material having a fluid permeability, the process comprising the steps of:
>
> placing a trailing end of said first portion adjacent a leading end of said second portion;
>
> aligning said trailing end of said first portion with said leading end of said second portion; and
>
> attaching a piece of splicing material to said trailing end of the first portion to define a first spliced region and to said leading end of the second portion to define a second spliced region, said piece of splicing material having a fluid permeability at least about 25% as great as a fluid permeability of said first portion of absorbent material and at least about 25% as great as a fluid permeability of said second portion of absorbent material, the fluid permeability of said first splicing region being at least about 25% as great as the fluid permeability of said first portion of absorbent material and the fluid permeability of said second splicing region being at least about 25% as great as the fluid permeability of said second portion of absorbent material.

(Appeal Brief, Claims Appendix).

The Examiner has set forth five (5) prior art rejections. The rejections are as follows:

i. Claims 1, 6-7 and 12 are rejected under 35 U.S.C. § 102(b) as being anticipated by Roslund, U.S. Patent 2,428,097.

ii. Claims 2-4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Roslund ‘097 in view of Platt, U.S. Patent 2,485,761.

iii. Claims 5 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Roslund '097 in view of Erceg et al., U.S. Patent 4,885,820.

iv. Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Roslund '097 in view of Erceg. '820 and further in view of Minarelli, U.S. Patent 5,427,639.

v. Claims 10 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Roslund '097 in view of Boriani et al., U.S. Patent 5,482,592.

As to claims 1-11, Applicant contends that Roslund does not "show or otherwise suggest" a process involving the formation of a splicing region having as great a fluid permeability as the absorbent materials being joined. (Appeal Brief, p. 7). [2] As to claim 12, Applicant contends that Roslund fails to disclose, either

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2 Applicant only specifically appealed claims 1, 5, 8 and 12 but requests that all of the Examiner's rejections be reversed and claims 1-12 be allowed. (For example, compare p.2, Status of Claims with p. 18, Conclusion). The Examiner's Answer demonstrates that the Examiner understood Applicant's Appeal Brief as requesting appellate review for claims 1-12 and rejections thereof. For example, the Examiner's Answer states that "[t]his appeal involves claims 1-12 with claims 1, 5, 8, and 12 each being argued separately." (Answer, p. 2, Status of Claims). We find that both Applicant and the Examiner were of the opinion that all claims and rejections were appealed.

We also find that both Applicant and the Examiner were of the understanding that, should the Board reverse the Examiner's rejection of independent claim 1, the rejections of dependent claims 2-11 would likewise be reversed. This finding is based upon our review of the positions taken in the Appeal Brief, Examiner's Answer, Reply Brief, Supplemental Answer, and Second Reply Brief. For example, the Second Reply Brief focuses on the fluid

expressly or inherently, each and every element of claim 12. In particular Applicant argues that the Examiner failed to demonstrate that Roslund teaches a piece of splicing material having the fluid permeability of at least about 25% as great as the fluid permeability of the absorbent materials being spliced together. (*Id*. at 14-15).

The Examiner contends that the Applicant's claimed spliced region only requires that the spliced region fall within the splicing material. From this, the Examiner concludes that holes within a splicing material could constitute Applicant's spliced region. The Examiner then contends that Roslund renders Applicant claim 1 unpatentable as Roslund teaches a splicing material formed with cement strip having holes, the holes constituting Applicant's spliced region having a fluid permeability at least about as great as the absorbent materials being spliced together. (Examiner's Answer, p. 6).

As to Applicant claim 12, the Examiner states that Roslund teaches that the absorptive capacity of the splicing region is "dependent upon the total area of the openings while at the same time keeping the area of the openings within practical limits to make a strong seam." (*Id*. at p. 7). The Examiner contends that one of

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permeability of Roslund's splicing region and states:

> In addition to the reasons set forth in Appellant's Reply Brief and Appeal Brief, the rejections of the claims on appeal are in error for the reasons set forth above. Therefore, Appellant's again request that the Examiner's rejections of claims 1-12 be reversed.

(Second Reply Brief, p. 4).

ordinary skill in the art would understand that Roslund's "absorptive capacity is proportional to the total area of the openings, an indication that Roslund intends for a large total area of the openings." (*Id*. at 7-8).

We reverse the Examiner's rejections of claims 1-11 but affirm the Examiner's rejection of claim 12.

ISSUE

The issue is whether Applicant has shown that the Examiner erred in rejecting the claims. Specifically, the issue is:

> To what extent does Roslund teach or suggest a fluid permeable splicing region?

FINDINGS OF FACT

A. Applicant's '647 Specification and Claims

1) Applicant's claims on appeal are directed to a process for splicing two absorbent materials to form a longer continuous length of absorbent materials. (Appeal Brief, Independent claims 1 & 12).

2) A first and second splice region is formed by attaching a piece of splicing material to both the trailing end of a first absorbent material and to the leading end of a second absorbent material. (*Id*.).

3) The splicing material has a fluid permeability at least about as great as the fluid permeability of the first and second absorbent materials to be joined. (*Id*.).

4) The first and second splicing regions have a fluid permeability as great as the fluid permeability of absorbent materials being joined (claim 1) or at least about 25% as great as the absorbent materials being joined (claim 12).

5) Fluid permeability relates to the porosity of a material and is defined in terms of the ability of fluid to pass through a porous material. ('647 Specification, p. 6, para 23 and Appeal Brief, p. 6).

B. Prior Art

Roslund '097

6) The Examiner relies upon Roslund '097 as describing a splicing material having a fluid permeability at least about as great as the fluid permeability of the absorbent materials being joined. (Examiner's Answer, pages 3-4).

7) Roslund '097 describes a seam for absorbent textile fabrics, and in particular for drier felts used in paper making machines. (Roslund '097, col. 1, ll. 1-4).

8) Roslund's seam is formed from a solid cement strip that is both waterproof and heat proof. (*Id*. at col. 3, ll., 51-52, col. 5, ll. 43-50, and claim 1).

9) Roslund teaches that the presence of the cement cuts down on the total absorptive capacity of the felt at the seam to the extent it does not penetrate the seam. (*Id*. at col. 3, ll. 69-71).

10) To improve absorptive capacity of the seam, Roslund teaches that "it is desirable to provide the cement strip with recurrent openings of appreciable size at frequent intervals." (*Id*. at col. 3, ll. 72-74).

11) Roslund's recurrent openings are defined as "areas where the fabric is not bonded and through which the moisture absorbed from the paper at the working surface of the felt can readily penetrate." (*Id*. at col. 4, ll. 5-10).

12) Roslund '097 teaches that increasing the number of openings improves absorptive capacity at the seam but at the expense of seam strength. Specifically, Roslund '097 states:

> It is obvious that the grater the total area of the openings in relation to the bonded area of the fabric, the greater will be absorptive capacity of the drier felt at the seam. Of course, the total area of openings should be kept within practical limits as otherwise there will be insufficient bonding to make a strong seam which will withstand the longitudinal strain on the drier felt during operation.

(*Id*. at col. 4, ll. 65-73).

13) Roslund '097 states that:

> A further primary object of the invention is to provide a cement seam for drier felts of such character that the porosity and moisture absorbing capacity of the felt at the seam will be ***maintained to a***

> ***large degree*** so that such area as well as other areas of the felt may take up the moisture driven out of the paper.

(*Id*. at col. 1, ll. 8-14, emphasis added).

Platt '761

14) The Examiner relies upon Platt '761 for its description of a heat softenable splicing material in a web pattern. (Examiner's Answer, p. 4).

Erceg '820

15) The Examiner relies upon Erceg '820 for its description of:

> [A] method of butt splicing foam materials which are generally water absorbent materials by applying a foam splicing material over the first face of both adjacent sheets.

(Examiner's Answer, p. 4).

Minarelli '639

16) The Examiner relies upon Minarelli '639 for its description of applying splicing materials to opposite faces of webs being spliced. (*Id*. at 5).

Boriani '592

17) The Examiner relies upon Boriani '592 for its description of a splicing material being wrapped around the webs being spliced. (*Id*.).

18) The Examiner does not rely upon Platt '761, Erceg '820, Minarelli '639 or Boriani '592 as teaching or suggesting a particular fluid permeability. (Examiner's Answer, p. 4).

PRINCIPLES OF LAW

Claims are given their broadest reasonable construction during prosecution before the USPTO because claims may be amended to the proper scope and because it serves the public interest by reducing the possibility that the claims will be construed more broadly after issuance than they were during examination. *In re Bigio*, 381 F.3d 1320, 1324, 72 USPQ2d 1209, 1211 (Fed. Cir. 2004). In construing claims, we begin with the presumption that claims mean what they say. *CCS Fitness, Inc. v. Brunswick Corp*., 288 F.3d 1359, 1366, 62 USPQ2d 1658, 1662 (Fed. Cir. 2002)(There is a "heavy presumption" that claim terms carry their accustomed meaning in the relevant community at the relevant time); *Johnson Worldwide Assocs., Inc. v. Zebco Corp*., 175 F.3d 985, 989, 50 USPQ2d 1607, 1610 (Fed. Cir. 1999) ("[A] court must presume that the terms in the claim mean what they say, and, unless otherwise compelled, give full effect to the ordinary and accustomed meaning of claim terms.").

Anticipation under 35 U.S.C. § 102 is a question of fact. *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

As to obviousness, "[u]nder § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved." *Graham v. John Deere Co*., 383 U.S. 1, 17-18 (1966).

ANALYSIS

Claims 1-11

Applicants correctly point out that the Examiner has construed Applicant's splicing region of claims 1-12 as follows:

> One or more of the holes in the splicing material of Roslund could constitute the first spliced region because they fall within the boundaries of the piece of splicing material.

(Examiner's Answer, Response to Argument, p. 6). Yet, independent claims 1 and 12 explicitly define the splicing regions as follows:

> [A] ttaching a piece of splicing material to said trailing end of the first portion to define a first spliced region and to said leading end of the second portion to define a second spliced region

(Appeal Brief, Claims 1 and 12).

While the Examiner's construction of Applicant's claim language is broad, it is not reasonable given the plain language of the claims. Claims 1-12 define the splicing regions as those portions where a splicing material is attached to the absorbent material. One or more holes in the splicing material would not themselves constitute the spliced region as there is no "attachment" at that point.

Further, the plain language construction of Applicant's splicing region is that the splicing region constitutes the entire area bounded by the attached spliced material and not a subset thereof.

The Examiner recognizes that fluid permeability through a perforated material is dependent upon many factors including pore size, pore distribution, flow rate and viscosity. (*Id*.). The Examiner contends however, that the total fluid permeability through the entire splicing region of Roslund is not necessarily decreased by the presence of the perforated splicing material. (Examiner's Answer, p. 7). Applicant's disagree.

Roslund teaches a cement strip for creating a seam. To improve water absorption, Roslund teaches that it is desirable to perforate the cement strip at frequent intervals. Perforating the cement strip decreases the strip's tensile strength. Accordingly, Roslund teaches that there is a practical limit on the number of perforations. Roslund achieves a balance of strength and perforations such that, at best, "the porosity and moisture absorbing capacity of the felt at the seam will be ***maintained to a large degree***." (Roslund at col. 1, ll. 10-14, emphasis added).

One of ordinary skill in the absorbent material art would understand that maintaining fluid permeability to a large degree implies that the fluid permeability has been decreased. Specifically, we find that the Examiner has failed to demonstrate that Roslund's maintaining fluid permeability to a large degree teaches or suggests "having a fluid permeability at least about as great as the fluid permeability" of the absorbent materials being joined. Additionally, the examiner does not allege that Platt '761, Erceg '820, Minarelli '639 or Boriani '592 teach or

suggest a particular fluid permeability. On this record before us, it follows that the Examiner erred in rejecting claims 1-11 as anticipated over Roslund or obvious over Roslund in view of the additional cited references.

Claim 12

As discussed above, Roslund teaches that the fluid permeability of its spliced region is maintained to a large degree. Unlike claim 1, Applicant's claim 12 merely requires that the splicing region have a fluid permeability at least about 25% as great as the fluid permeability of the absorbent materials being joined.

Roslund explicitly teaches that its cement strip splicing material maintains to a large degree the porosity and absorbing capacity of the absorbent materials being joined. (Roslund, col. 1, ll. 8-14). This teaching is a factual basis for finding that a majority of the fluid permeability is maintained, *i.e*., something greater than 50 %. We find that one of ordinary skill in the art reading Roslund would understand that Roslund forms a splicing region at least about 25 % fluid permeability of the absorbent materials being joined.

Under the principles of inherency, if a prior art device in its normal and usual operation will perform Applicant's claimed function, then the claim will be considered anticipated by the prior art device. *In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986). Accordingly, as Roslund teaches that a majority of the porosity and absorbing capacity is maintained, we find that the Examiner has presented a *prima facie* case of anticipation as to Applicant claim 12.

Applicant contend that Roslund fails to teach, explicitly or inherently a splicing material having at least about 25% as great a fluid permeability as the

portions of absorbent material joined by the splicing material. (Appeal Brief, pages 14-15). In particular, Applicant states that there is no factual basis on which it can be said that Roslund's cement strip necessarily results in the claimed fluid permeability. (*Id*. at 15).

Applicant's contention that Roslund will not achieve the claimed at least about 25% fluid permeability runs contrary to Roslund's description of a seam that largely maintains the porosity and absorbency of its absorbent materials to be spliced. As recognized by the Federal Circuit, an Applicant's mere argument challenging the USPTO to prove the truth of the statements made in a prior art patent is insufficient to rebut a *prima facie* case of anticipation as the USPTO is not equipped to conduct testing to verify the statements made in the prior art. *King* at 1327, 231 USPQ at 139. We find that the Examiner did not error in rejecting Applicant's claim 12 as anticipated.

AFFIRMED-IN-PART - 37 CFR ' 41.50(b)

/Richard Torczon/	)
RICHARD TORCZON	)
Administrative Patent Judge	)
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/Sally Lane/	) BOARD OF PATENT
SALLY LANE	)
Administrative Patent Judge	) APPEALS AND
	)
	) INTERFERENCES
/Michael P. Tierney/	)
MICHAEL P. TIERNEY	)
Administrative Patent Judge	)

MPT/lp

SENNIGER POWERS
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS, MO 63102